

Cont
A2

9. (Amended) The gel or microemulsion as claim d in claim 10 or 15 further comprising active ingredients, additives or auxiliaries.

Schreiber et al.,
09/890,078
Beiersdorf, 724-WCG

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicants request that this be considered a petition therefore. Please charge the required fee to Deposit Account No. 14-1263.

ADDITIONAL FEES

Please charge any further insufficiency of fees, or credit any excess to Deposit Account No. 14-1263.

REMARKS

Claims 1-9 are in the application. Claims 1 and 2 were canceled and new claims 10-20 are added.

Claims 1-9 are held rejected under 35 U.S.C. § 112, 2nd ¶ as allegedly being vague and indefinite. These rejections are addressed by amendment, although, these amendments are not to be taken as conceding the correctness of the rejection.

Examiner asserts that the terms "oil-in-water", "O/W" and "W/O" are used inconsistently throughout the claims. Applicants respectfully disagree in view of our inability to detect any obviously inconsistent use of the terms. Perhaps Examiner is referring to the *optional inclusion of a W/O emulsifier* in an O/W emulsion. Applicants clearly intend this claim limitation, and accordingly it is not inconsistent and the rejection should be withdrawn.

Claims 1-6 and 9 are held rejected under 35 U.S.C. § 103(a) as being unpatentable over Diec et al (WO 9628132 A2) ("Diec") in view of Friedman et al. (US 6113921) ("Friedman").

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Schreiber et al.

09/890,078

Beiersdorf 724-WCG

Claims 1-9 were held rejected under 35 U.S.C. § 103(a) as being unpatentable over Friedman et al., (US 6113921) ("Friedman") in view of Hill et al., (US 5623017) ("Hill") and Schröder et al., (US 5,298,240) ("Schröder").

The rejections over the cited references are discussed below in detail. Consideration of the remarks is respectfully requested:

A. Applicants' Invention

The claimed subject matter is directed toward a novel and nonobvious gel that can be diluted to low viscosity microemulsions. This distinguishes the present invention over gels in the art, such as those in the cited references. Specification, page 14, lines 18-21.

The physico-chemical basis of the invention is that phospholipid gels are not true emulsion gels. This is because they (1) lack the viscosity enhancing agents typically used in microemulsion gels; and (2) lack a discrete dispersed phase present in droplet form. Specification, page 14, lines 10-12.

A key feature of the invention is that adding one or more O/W emulsifiers to a phospholipid *nonemulsion*-based gel transforms it to a *dilutable* gel capable of convenient conversion into a lower viscosity microemulsion having true dispersed phase droplets, i.e., a true emulsion. These features are not known in the art, and are not disclosed in the references.

B. Diec in View of Friedman

(1) General Comments on Diec/Friedman

It is respectfully suggested that Examiner's mode of analysis does not encompass the invention as a *whole*, or the references in their entirety. Instead, the analysis reflects use of Applicants' claims as a template for compiling in piecemeal

Schreiber et al.

09/890,078

Beiersdorf 724-WCG

fashion a selective list of components chosen from the references. This is clearly improper, as it is known that the basic considerations for determining obviousness are:

- (A) The claimed invention must be considered as a whole;
- (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and
- (D) Reasonable expectation of success is the standard with which obviousness is determined.

MPEP § 2141 (Emphases added).

Applicants' invention as disclosed and described in new claims 10 and 15 requires that the claimed gels and microemulsions be in a form lacking the typical viscosity enhancing compounds and thus be amenable to viscosity adjustments. It is also required that this reduction in viscosity occur without loss of the droplet size required to provide the translucent or transparent microemulsion. It is respectfully suggested that Diec and Friedman, when viewed in their entirety, neither alone nor combined teach or even remotely suggest the claimed subject-matter.

Diec and Friedman, do not suggest that the viscosity of their gels can or should be varied subsequent to its preparation. Neither do they disclose any properties or features of their compositions directed toward achieving viscosity adjustments.

They do not disclose methodology that results in altering the viscosity of their gels (or any gels, for that matter) subsequent to preparing said gels.

Therefore, Diec/Friedman cannot reasonably be viewed as possessing sufficient teachings or suggestions to render the instant claims obvious.

Diec's gels are cross-linked by a bifunctional hydrophilic polymer having terminal hydrophobic groups. It is not known in the art, nor does Diec teach or suggest, that such a cross-linked gel can merely be diluted with an aqueous composition to obtain a lower viscosity and maintain a stabilized microemulsion. Diec does not address the issue of reversible organogels.

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Schreiber et al.
09/890,078
Beiersdorf-724-WCG

Diec's deficiencies cannot be cured by combining with Friedman's phospholipids. Friedman prepares gels by combining a lecithin oily phase with an aqueous phase having *two hydrophilic gelling agents*, e.g., pluronic acid and carbopol. See Friedman, Example 1, and subsequent examples; col. 5; lines 40-59.

Examiner cites Friedman to suggest addition of phospholipid. See Office Action, page 4, last ¶. This is inappropriate because it does not consider Diec and Friedman as "wholes" as required by the guidelines. MPEP § 2141. Instead, the Examiner improperly used the claims as a blueprint for reconstructing the invention by working backwards.

What are the explicit or implicit suggestions and motivations in Diec and/or Friedman to suggest that they should be combined? Why would one in the art combine Friedman (i.e., to include the lecithin) when Friedman does not even disclose the desirability of preparing a cross-linked microemulsion having an additional emulsifier (i.e., the lecithin)?

Applicants respectfully suggest that the combined reference offer no rational basis to suggest this combination, other than the fact that the ingredients are physically compatible. However, without a clear rationale to combine, this is a legally insufficient basis for raising and maintaining this rejection under § 103(a).

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 16 USPQ2d 1430 (Fed. Cir. 1990). (Emphasis supplied in MPEP 2143.01).

Maintaining the rejection requires that Diec and Friedman teach and/or suggest that adding lecithin to a cross-linked and stabilized microemulsion possessed a reasonable expectation of success to yield the gel or gel-like microemulsion capable of aqueous dilution to a lower viscosity. There is absolutely

Schreiber et al.

09/890,078

Beiersdorf 724-WCG

no evidence in either of these references to suggest the desirability or plausibility of this property.

Accordingly, these references do not suggest a key claim limitation and therefore, the rejection should be withdrawn.

(2) Diec/Friedman Teach-Away From the Claims

By formulating gels having cross-linking agents or polymeric viscosity enhancers, both Diec impliedly and Friedman expressly, teach-away from the claimed compositions.

One with skill in the art, having known Diec's disclosure describing stabilized gel formulations, would have been discouraged from the research path of trying to develop reversibly-dilutable gels as an intermediate step to arrive at very fine microemulsions. *In re Gurley*, 31 USPQ2d 551, 553 (Fed. Cir. 1994); see section C(1) below. In view of the totality of its teachings and suggestions, Diec cannot reasonably render the claims obvious.

In addition, Friedman expressly requires viscosity enhancers such as pluronic acid to increase the viscosity of his composition. This is clearly contrary to claim 10's definition of the claimed composition as defined in the preamble.

In sum, it is respectfully requested that the obviousness rejection over Diec and Friedman be withdrawn because these references (1) do not teach or suggest anything about how to arrive at a gel or microemulsion that can be diluted; and (2) because stabilized gels teach away from unstabilized gels that can be diluted.

C. Friedman, in View of Hill and Schröder

(1) Friedman Is Insufficient for Raising or Maintaining the Rejection

9
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Schreiber et al.
09/890,078
Beiendorf 724-WCG

Because the Friedman disclosure is prevalent in all of the obviousness rejections raised, some additional comments are warranted.

Friedman specifically includes known hydrophilic polymeric gelling agents in the aqueous phase. See Examples, e.g., Ex. 1 lines 30-31, and all subsequent examples. Therefore, Friedman is not only far removed Applicants' composition and process of preparing it, but it would also be impossible to reduce the viscosity of Friedman's gel by adding more of Friedman's aqueous phase because doing so would actually add more gelling agent and thus, increase the viscosity. It is virtually impossible for one with skill in the art to use Friedman to arrive at any gel or viscous microemulsion that can be diluted by adding more of the aqueous phase.

It is settled law that "a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." *In re Gurley*, 31 USPQ2d 551, 553 (Fed. Cir. 1994).

In this application, it is clear that because Friedman includes gelling agents, e.g., Pluronic acid and Carbopol in his aqueous phase, that adding additional amounts of the aqueous phase will increase viscosity, not decrease it. One with skill in the art would clearly be discouraged from using Friedman to arrive at the claimed subject matter.

Accordingly, because Friedman's teachings and suggestions fall squarely under *Gurley*, the obviousness rejections based on Friedman should be withdrawn.

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Schreiber et al.
09/890,078
Beiersdorf 724-WCG

(2) Friedman does not Provide for Transparent or Translucent Microemulsions

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A survey of Friedman's examples indicate that droplet size varies from 0.10 μm up to 50 μm . Therefore, Friedman's emulsions are almost all nontransparent and have a bluish white to white color. Specification, page 2, 2nd ¶.

(3) Schröder Teaches Away From the Claims AND From Friedman

Schröder cannot cure the defects in Friedman because, Schröder teaches away from Friedman, and therefore, cannot be properly combined.

The Federal Circuit recently held that "if a first prior art reference 'did in fact teach away from a second reference, then that finding alone can defeat an obviousness claim' based on the two references." Winner International Royalty Corp. v. Wang, 53 USPQ2d 1580 (Fed. Cir. 2000) (Emphasis added).

In Friedman, the surfactant to be employed must be *non-ionic*. See e.g., col. 2, line 28; col. 15, line 4 of claim 1. In direct contrast, Schröder's gel's require *cationic* surfactants, namely quaternary ammonium compounds. See Schröder, col. 3, lines 44-60; Examples 1-16. It is well-known in the art that a cationic surfactant cannot be included in the group of non-ionic surfactants. Thus, requiring non-ionics immediately eliminates cationics. Thus, following the rule of Wang, it is improper to maintain an obviousness rejection over Friedman/ Schröder.

One with ordinary skill in the art could not find any suggestion to combine contrary references such as Schröder and Friedman *for any purpose*. Their combined disclosures cannot reasonably lead one with skill in the art to Applicants' claimed microemulsion with a reasonable expectation of success.

On this basis the rejection over the combination of Schröder and Friedman.

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Schreiber et al.,
09/890,078
Beiersdorf 724-WCG

(4), Hill Does not Cure the Defects of Friedman or Schröder

The foregoing arguments essentially render Hill irrelevant and insufficient for maintaining the rejection.

However, Applicants point out that Hill also teaches away from Applicants' claims because it teaches a composition that has as up to about 40% of a volatile cyclic or linear methyl siloxane (VMS) (col. 6, line 51.). Applicants' claim 1 clearly requires low-volatility components. Therefore, as in the foregoing discussions, Hill is insufficient to maintain the rejection.

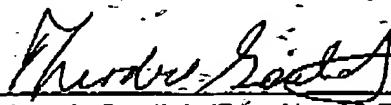
Therefore, in accordance with the rules of *Gurley* and *Wang* and the facts set forth above, Applicants respectfully request that the obviousness rejections based on Friedman/Diec and Friedman/Schröder/Hill, be withdrawn.

CONCLUSION

Reconsideration and allowance of the claims is respectfully solicited in view of the amendments and the foregoing discussions.

Applicants have addressed all rejections and express the good-faith belief that the claims are in condition for allowance.

Respectfully submitted,
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Schreiber et al.
09/890,078
Beiersdorf 724-WCG

MARK UP OF AMENDED CLAIMS

3. (Amended) A hair gel, shower gel, or skin gel comprising the ~~The gel as claimed in~~
~~of~~ ~~claim 10 or 15 1 or 2, characterized in that it is used as hair gel, shower gel, or~~
~~skin gel.~~

4. (Amended) The gel or microemulsion as claimed in claim 10 or 15 1 or 2 further
comprising characterized in that it comprises deodorants or antiperspirants.

5. (Amended) The gel or microemulsion as claimed in claim 10 or 15 1 or 2, further
comprising characterized in that it comprises a UVA and/or UVB filter substance.

6. (Amended). The gel or microemulsion as claimed in claim 10 or 15 1 or 2,
further comprising characterized in that it comprises antioxidants.

7. (Amended) The gel or microemulsion as claimed in claim 10 or 15 1 or 2 further
comprising characterized in that it comprises a cosmetic cleansing preparation.

8. (Amended) The gel or microemulsion as claimed in claim 10 or 15 1 or 2 further
comprising characterized in that it comprises haircare composition.

9. (Amended) The gel or microemulsion as claimed in claim 10 or 15 1 or 2 further
comprising characterized in that it comprises active ingredients, additives or
auxiliaries.

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